



# MASSDEVELOPMENT

December 21, 2015

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Dear Sirs:

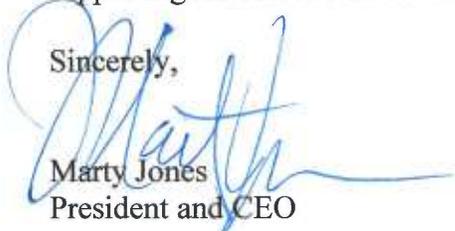
MassDevelopment is pleased to submit this fourth annual report of the Advanced Manufacturing Futures Program (“AMFP”) as required by Chapter 238 of the Acts of 2012, An Act Relative to Infrastructure Investment, Enhanced Competitiveness and Economic Growth in the Commonwealth. This report summarizes the progress that MassDevelopment has made with respect to the AMFP during Fiscal Year 2015.

In 2013, MassDevelopment received \$9,375,000 of an expected \$18,500,000 from the FY14 state budget to capitalize the AMFP (MassDevelopment has not received the balance of these funds). MassDevelopment has developed and managed the AMFP in consultation with the Secretary of the Executive Office of Housing and Economic Development, the Advanced Manufacturing Collaborative, and industry leaders. As this report reveals, the initial capitalization from the Commonwealth has allowed the AMFP to facilitate the growth and competitiveness of Massachusetts manufacturers through grants, contracts, and loans that:

1. Improve access to technical assistance for small and mid-sized manufacturers
2. Encourage the adoption of new technologies and advanced manufacturing capabilities
3. Develop programs to educate individuals about opportunities for career advancement to support the future manufacturing worker pipeline
4. Facilitate education and skills-training through individualized career-pathway programs
5. Foster academic and industry collaboration
6. Coordinate activities of supporting agencies and partners

Beginning with the work of MIFA, a predecessor agency, MassDevelopment has prioritized supporting manufacturers and looks forward to continuing to do so in 2016.

Sincerely,



Marty Jones  
President and CEO

**Advanced Manufacturing Collaborative Meetings** – The Advanced Manufacturing Collaborative (AMC) convened two regional half-day summits, following the first regional one that took place in the Pioneer Valley on December 15, 2014. A summit was held on May 18, 2015 in Taunton, in collaboration with the Legislative Manufacturing Caucus and Southeastern Massachusetts Advanced Manufacturing Consortium. U.S. Representative Joe Kennedy III; State Representative John Fernandes, Manufacturing Caucus House Chair; and Executive Office of Housing and Economic Development Secretary Jay Ash served as keynote speakers for 150 attendees.

The second 2015 summit, cosponsored by the Northeast Advanced Manufacturing Consortium (NAMC), occurred on October 26, 2015 at the UMass-Lowell Innovation Hub. Featured speakers included Kevin Murphy, Manager, City of Lowell; Jacqueline Moloney, Chancellor, UMass-Lowell; Steven Tamasi, Boston Centerless and NAMC; and Executive Office of Labor and Workforce Development Undersecretary Ronald Marlow. More than one hundred people attended this event. After the meeting, a job seeker/employer networking event for sixty job-seekers and fifteen employers took place in the same venue.

On September 29, 2015, the entire AMC convened under the leadership of Assistant Secretary of Innovation, Technology, and Entrepreneurship of Executive Office of Housing and Economic Development Katie Stebbins; Mitch Tyson, Tyson Associates; and Ed Leyden, Ben Franklin Design and Manufacturing, Inc. Twenty-nine AMC members attended. Members of industry discussed the continuing need for the AMC and the AMC 2016 agenda.

**AMP it up!** – AMP it up! is a promotional program to encourage young people to pursue advanced manufacturing careers. MassDevelopment maintains the website and provides grants for manufacturing tours and other events. The target audience includes adult influencers such as parents, guidance counselors, and teachers.

Annually, AMP it up! issues matching grants to partnerships of regional employment and workforce investment boards; advanced manufacturers; chambers of commerce and development councils; community colleges; and youth-serving organizations. The community-based programs receiving the awards offer advanced-manufacturer tours; career-awareness workshops; information sessions for teachers and guidance counselors; and externships with manufacturers. MassDevelopment has made the following grants: in 2013, \$92,736 to ten partnerships; in 2014, \$108,950 to eleven partnerships; and in 2015, \$88,633 to nine partnerships.

MassDevelopment sponsored a video challenge for the first time in 2015. Students visited Bose, Mayfield Plastics, and Valentine Tool Company to learn about the impacts of advanced manufacturing and to make a video about the experience. Nearly 2,000 people voted on the videos, five of which received prizes. The grand prize went to Nashoba Valley Tech High School for *The Bose Ride*. Four other prizes went to Sutton Middle School for *A Guide to Thermoforming*; Sutton Middle School for *Special: Mayfield Plastics*; Shawsheen Valley Tech HS for *Phillips Manufacturing*; and Norton High School for *Tool Tuesday*.

**MassMEDIC** – In July 2014, MassDevelopment announced a \$75,000 grant to MassMEDIC, the professional association of the medical device cluster. The program connected fourteen

Original Equipment Manufacturers (OEMs) to eighteen small and medium-size manufacturers so that more product components are supplied by Massachusetts companies rather than out-of-state or international suppliers. The program worked so well that an additional \$45,000 was awarded so that a second round of vendors can meet and present to an OEM group in January 2016.

**Manufacturing Day** – National Manufacturing Day took place on Friday, October 2, 2015. On September 25, 2015 the Governor proclaimed October 2015 as Manufacturer Month to recognize the world-class companies that distribute innovative products globally and are an essential part of the Commonwealth’s economy. MassDevelopment promoted this proclamation widely to encourage tours, discussions, speakers, and open houses. The AMP it up! website at [ampitupma.com/manufacturingmonth](http://ampitupma.com/manufacturingmonth) provided an online listing of twenty-nine events and tours throughout the Commonwealth, including those hosted by AccuRounds, Berkshire Sterile Manufacturing, Mount Wachusett Community College, Smith & Wesson, Nypro, and the Massachusetts Export Center.

**MACWIC Program** - In December 2014, MassDevelopment announced a grant of \$747,160 to MassMEP to expand and continue the Manufacturing Advancement Center Workforce Innovation Collaborative (MACWIC) for two years. MACWIC offers competency testing and certification to students at vocational schools and community colleges that have advanced technology programs. In 2015, twenty-four of thirty-three vocational high schools completed Level 1 testing, and twenty-eight schools tested at Level 2 (of 5 levels). MACWIC seeks to enable all state vocational schools and community colleges to provide successful programs at all levels. MACWIC operates with the input of an advisory group of 213 member manufacturers and educational institutions.

**UMass-Lowell Innovation Hub** - In July 2014, MassDevelopment extended a \$400,000 grant to UMass-Lowell for the development of an Innovation Center, in the same building as The Massachusetts Medical Device Development Center (M2D2), a co-working space for the state’s smaller medical device companies. The Innovation Hub had its grand opening/ribbon cutting on October 6, 2015. The Innovation Hub fosters innovation, entrepreneurship, and economic development/job creation by linking the region’s technology startups and entrepreneurs to resources that facilitate the development, manufacturing, and commercialization of their respective innovations. The 11,000-square-foot tech incubator/accelerator includes co-working space at various price points, dedicated offices, meeting spaces, and the Prototype Lab with bench space, light tools, 3D printing, and electronic assembly areas.

**MassChallenge Inc.** – In August 2014, MassDevelopment announced a grant of \$200,000 to help to launch “MADE@” at MassChallenge in Boston, supporting staffing and leasing costs for one year. The 5,000-square-foot design space equipped with electronics and rapid prototyping equipment is the first hardware and rapid prototyping space to support early-stage hardware startups and entrepreneurs with no equity taken. By enabling access to equipment, mentorship, and the world’s largest Accelerator program, early-stage startups will accelerate their path towards an initial prototype and scalable product development. Lightspeed Manufacturing in Haverhill provided equipment and mentorship for the lab. As a result of the new space, MassChallenge attracted twenty-seven hardware start-ups, compared to twelve in the previous

year. Eight of the sixteen winners were hardware start-ups and won a total of \$1 million in prizes.

**Manufacturing Innovation Grants Program** – In 2015, MassDevelopment authorized up to \$1.5 million for an innovation grants program. Massachusetts manufacturers with one hundred or fewer employees can get subsidized services for product development, prototyping, scale-up, and cost reduction at four designated Innovation Grant Centers: Algonquin Industries, Inc.; Boston Engineering Corporation; Connecticut Center for Advanced Technology, Inc.; and Worcester Polytechnic Institute. Chosen for their technical expertise and experience working with manufacturing companies, the Centers provide guidance and equipment. MassDevelopment pays the lesser of \$75,000 or 75% of a contract between a manufacturing company and the Innovation Center of its choice. In 2015, there were fifteen contracts totaling \$500,000. In addition, the federal Office of Economic Adjustment has deemed appropriate for funding an additional \$300,000 for the three Massachusetts-based Centers in 2016 to support defense-related manufacturers.

**Greentown Labs** – In October 2014, MassDevelopment granted \$267,500 to Greentown Labs to work with start-up companies and Massachusetts manufacturers to link start-ups with the many manufacturing resources available in the Commonwealth. With the assistance of MassMEP, this program provided consultation and office hours to help start-ups clearly understand their manufacturing requirements. More than 500 office hours and seven workshops took place. In 2015, thirty-two start-ups were connected with eighty-three manufacturers.

**MIT Industrial Performance Center Research** – In FY14, MassDevelopment issued a grant of \$297,145 to MIT for a research project to identify gaps in the advanced manufacturing ecosystem in Massachusetts. The study “*Strengthening the Innovation Ecosystem for Advanced Manufacturing: Pathways and Opportunities for Massachusetts*” was published in May 2015, includes ten recommendations, and has been widely referenced by many entities working to support manufacturing in the Commonwealth.

**Working Capital Loan Guarantees** – In FY13, MassDevelopment introduced a Working Capital Loan Guarantee product recommended by the AMC. This product allows banks to increase their working capital loans to manufacturers by providing a guarantee up to 25% of the loan. This program responds to many small/medium enterprises that said that an inability to access the amount of working capital they needed hampered their growth. Two manufacturers have taken advantage of this program to date.

**Manufacturers Resource Web Portal** – MassDevelopment created and maintains RAMPMA.com, a searchable portal to help manufacturers access state resources. A search wizard directs users to agency/program websites according to industry, stage, and need criteria.

**MassMEC** – In March 2014, MassDevelopment announced the formation of MassMEC, a group-purchasing program that enables manufacturers and other businesses to obtain electricity and natural gas at volume discounts. MassMEC is managed by Early Bird Power, a private energy consulting firm chosen by MassDevelopment following a highly competitive RFP process. MassMEC membership is free to companies who also receive energy services such as

renewable and efficiency consulting. Three months after inception, MassMEC announced more than thirty founding partner companies, and since then more than 150 companies have joined MassMEC, with savings of more than \$1 million.